孕龍科技股份有限公司
ZEROPLUS TECHNOLOGY CO;LTD

Instrument Business Department

MII Specification

Version：V1.0

3F., No.123,Jian 8 Rd,, Chung Ho City, Taipei
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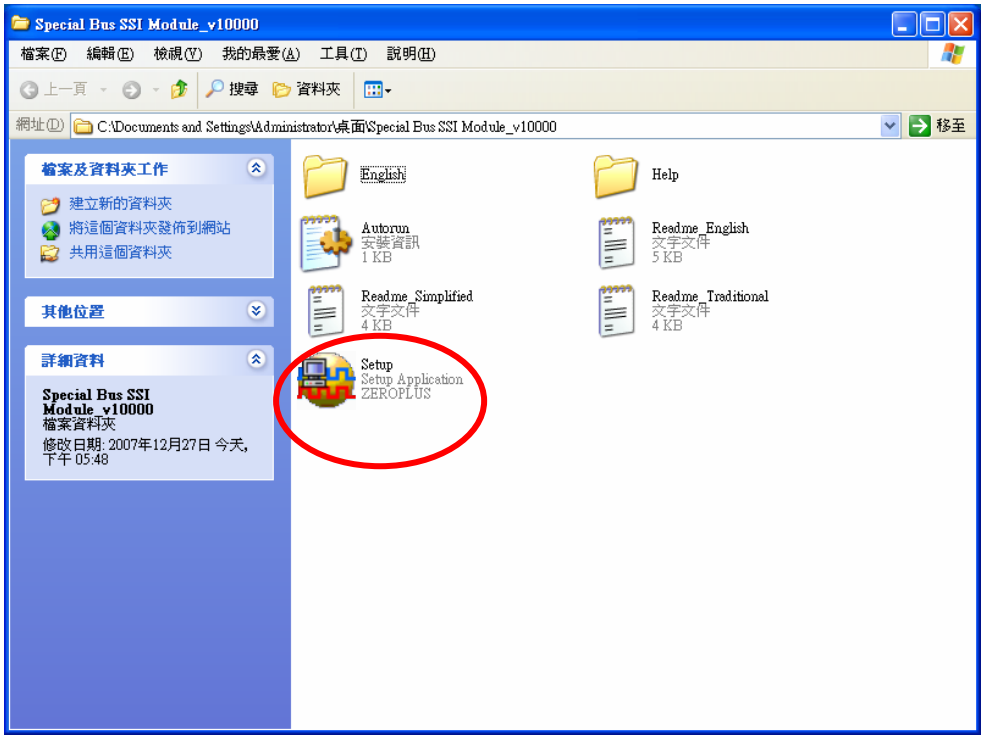
1 Software Installation

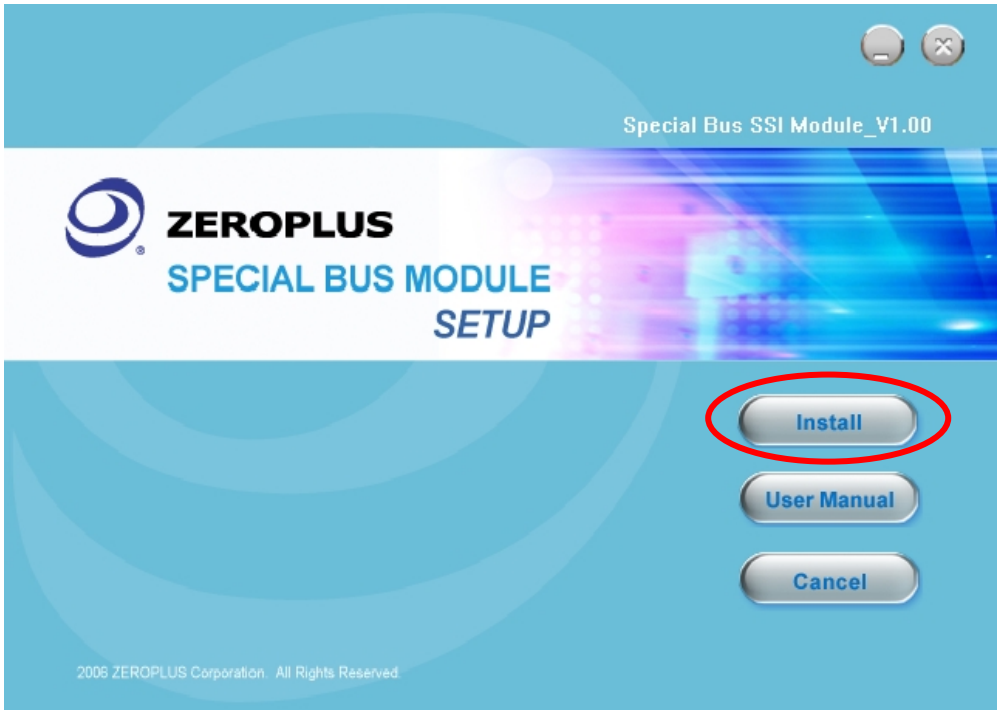
Please install the software as the following steps：

※Remarks: The installation steps for all buses are the same; you can complete installation by following procedures. Below is an example on how to install SSI bus.

STEP 1. Install Bus Module



STEP 2. Click **Install.**



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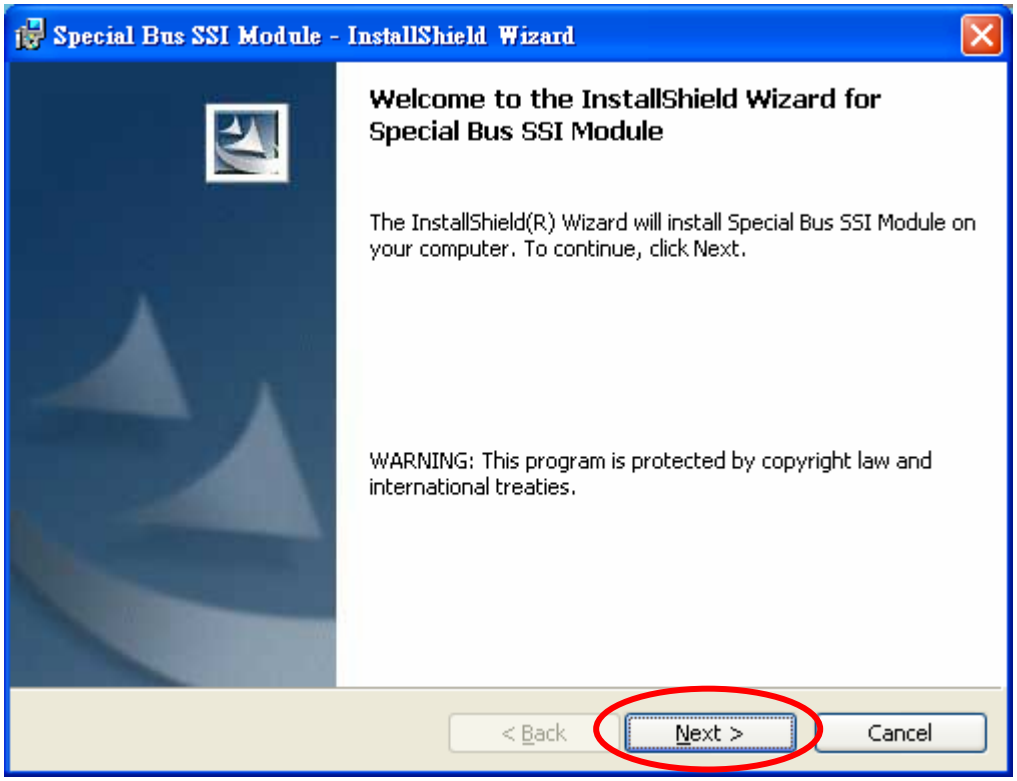
STEP 3. Click **Next.**



STEP 4. Select **I accept the terms in the license agreement** option**,** and then press **Next**.

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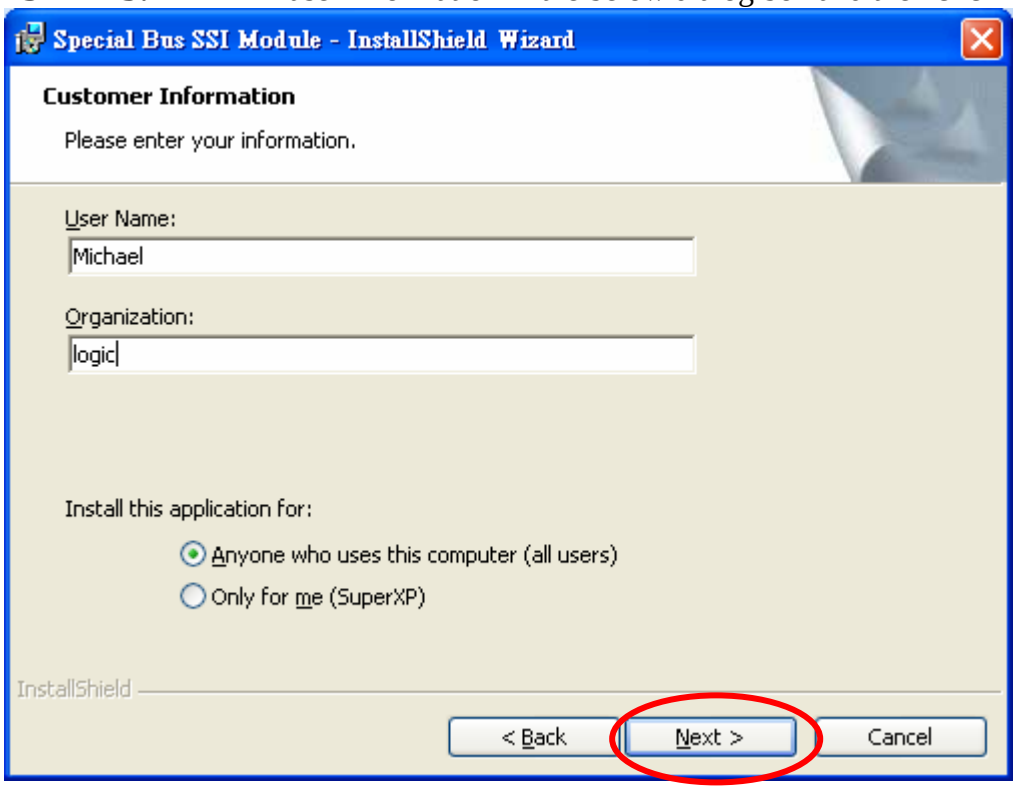
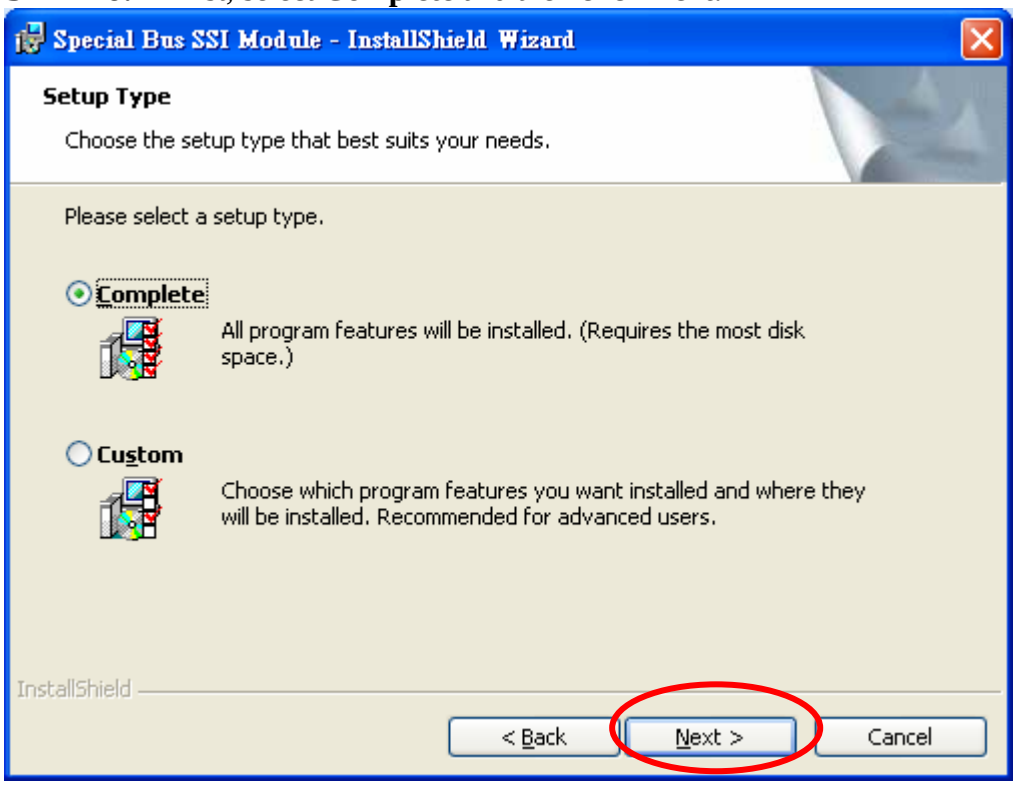
STEP 5. Fill in user information in the below dialog box and then click **Next**.



STEP 6. First, select **Complete** and then click **Next.**



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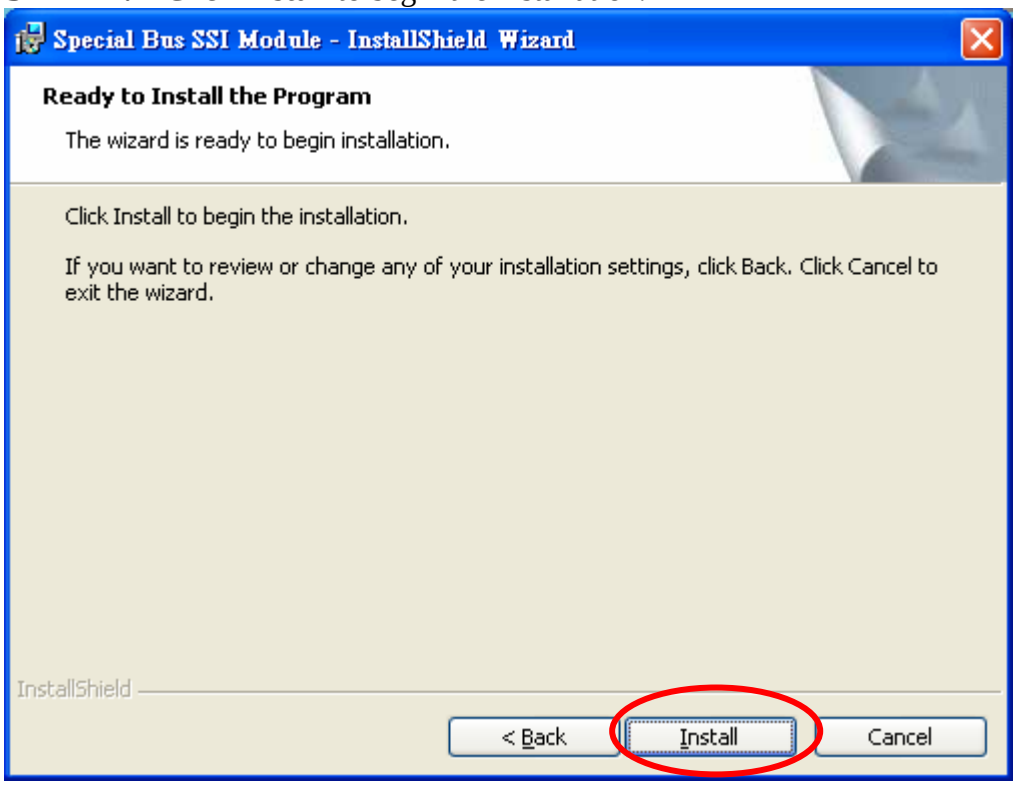
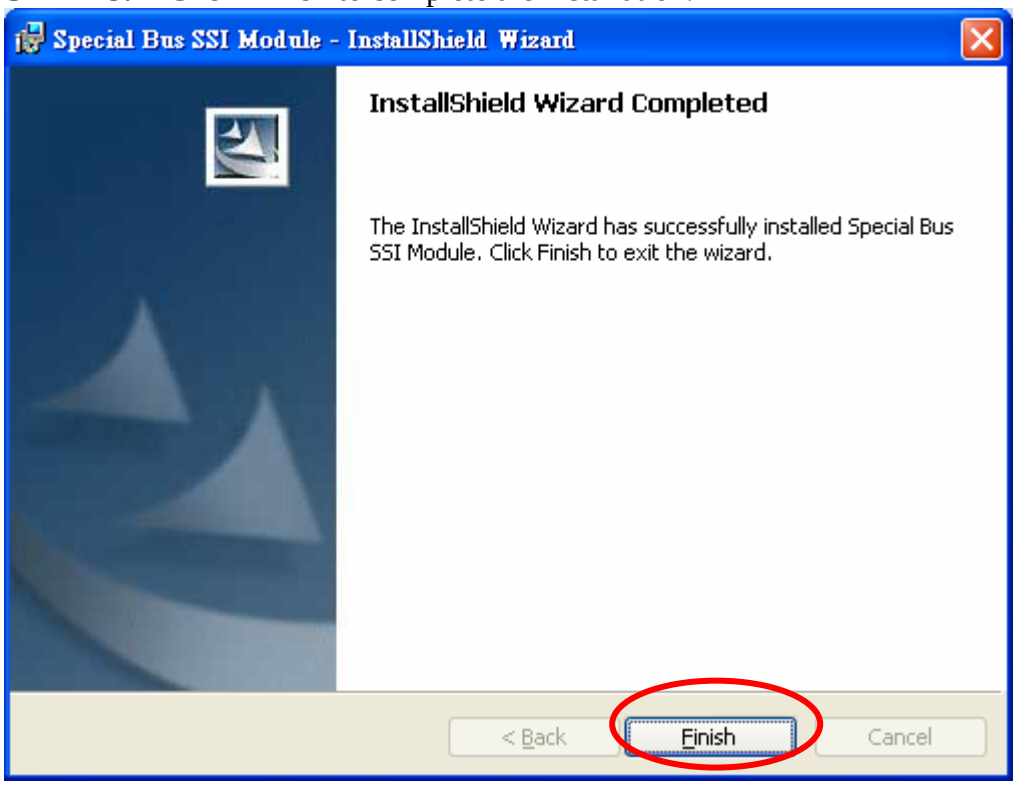
STEP 7. Click **Install** to begin the installation.



STEP 8. Click **Finish** to complete the installation.



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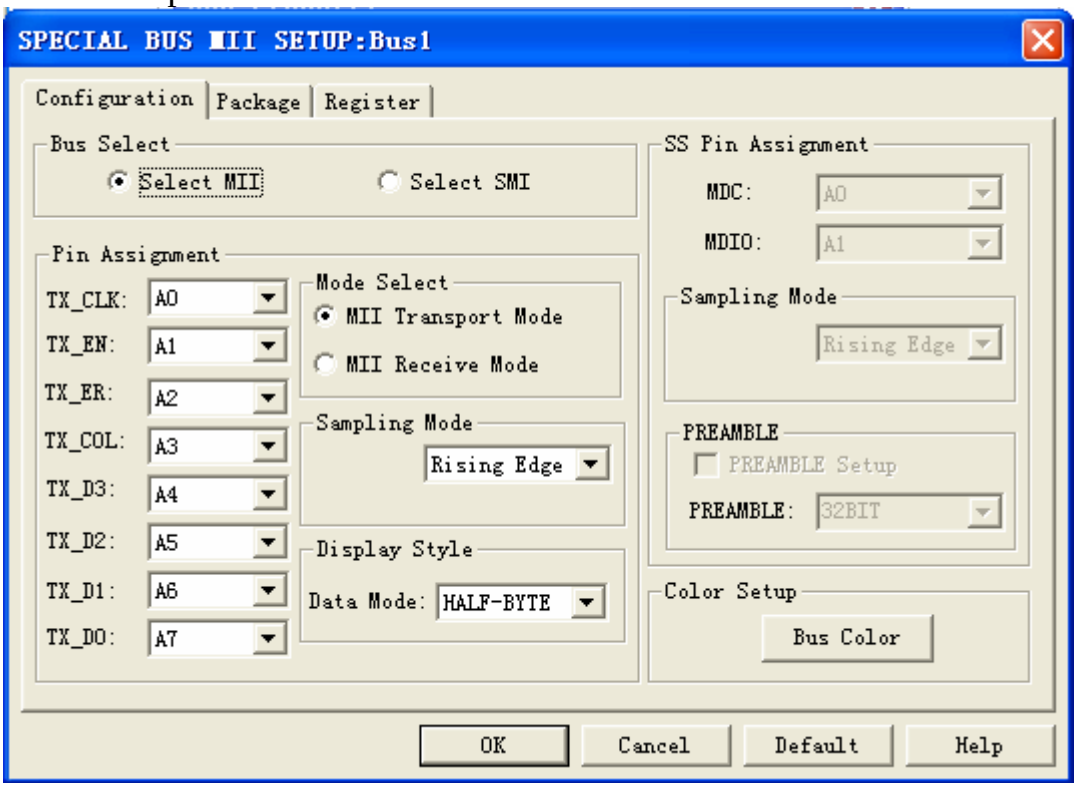
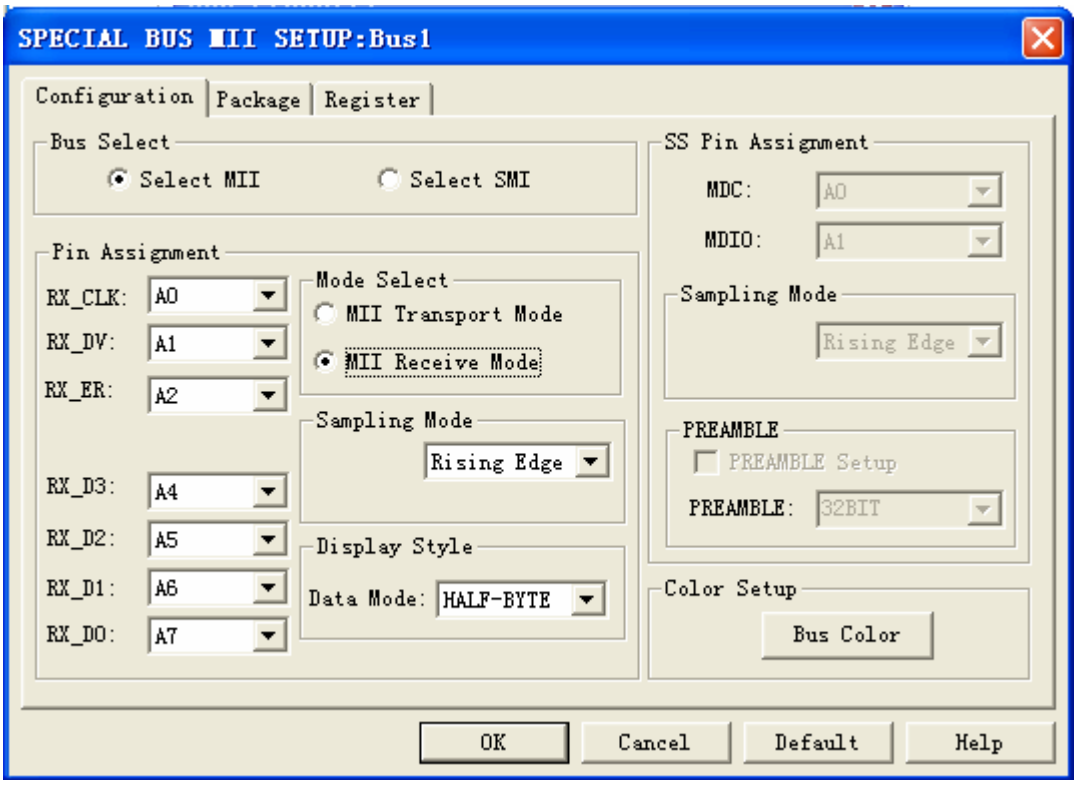
2 User Interface

In the configuration dialog box, please refer to the below images to select options of setting **MII MODULE**.

MII Transport Mode



MII Receive Mode



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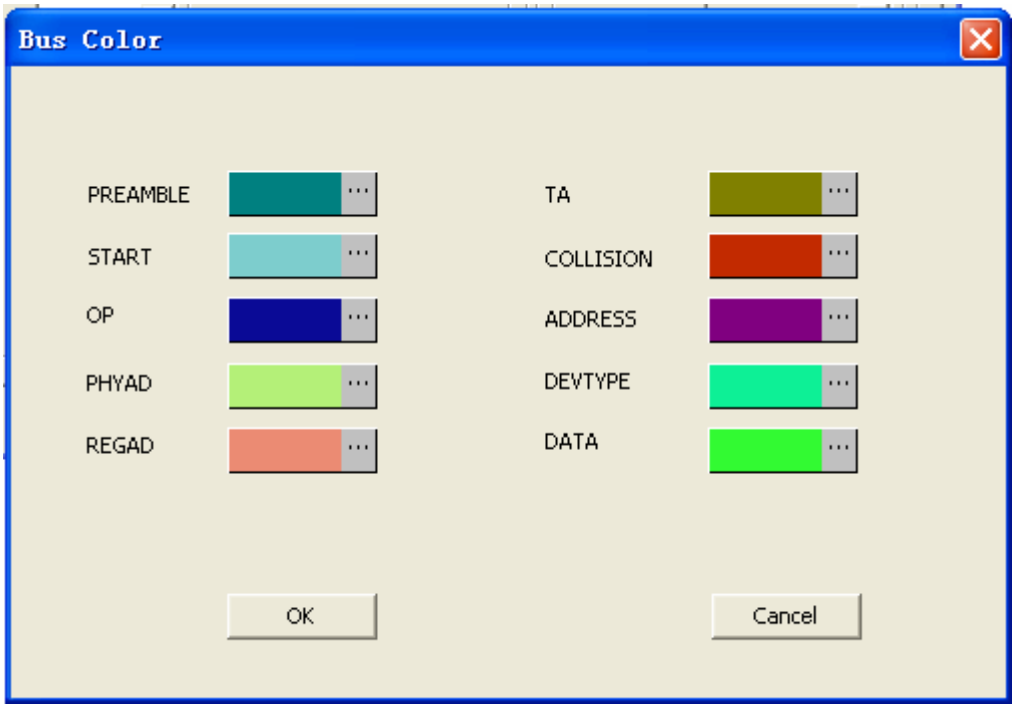

Bus Select
Select the mode of MII or SMI to decode
Pin Assignment
Select the channel of the MII mode and set the corresponding channels. It takes eight channels for the Transport Mode of MII to decode ,the eight channels are TX_CLK, TX_EN ,TX_ER, TX_COL and TX_DATA0～TX_DATA3. what's more ,it takes seven channels for the Receive Mode of MII to decode ,the seven channels are RX_CLK, RX_ER ,RX_DV and TX_DATA0～TX_DATA3.
Mode Select
There are MII Tranport Mode and MII Receive Mode for user to select.

Sampling Mode Select
There are Rising edge and Falling edge for Sampling Mode.

Display Style
It displays HALF- BYTE and ONE -BYTE for DATA Mode.

SS Pin Assignment
Select the corresponding channels for MDC and MDIO in the SMI mode.
Bus color
User can set bus color according to his or her own requirements.

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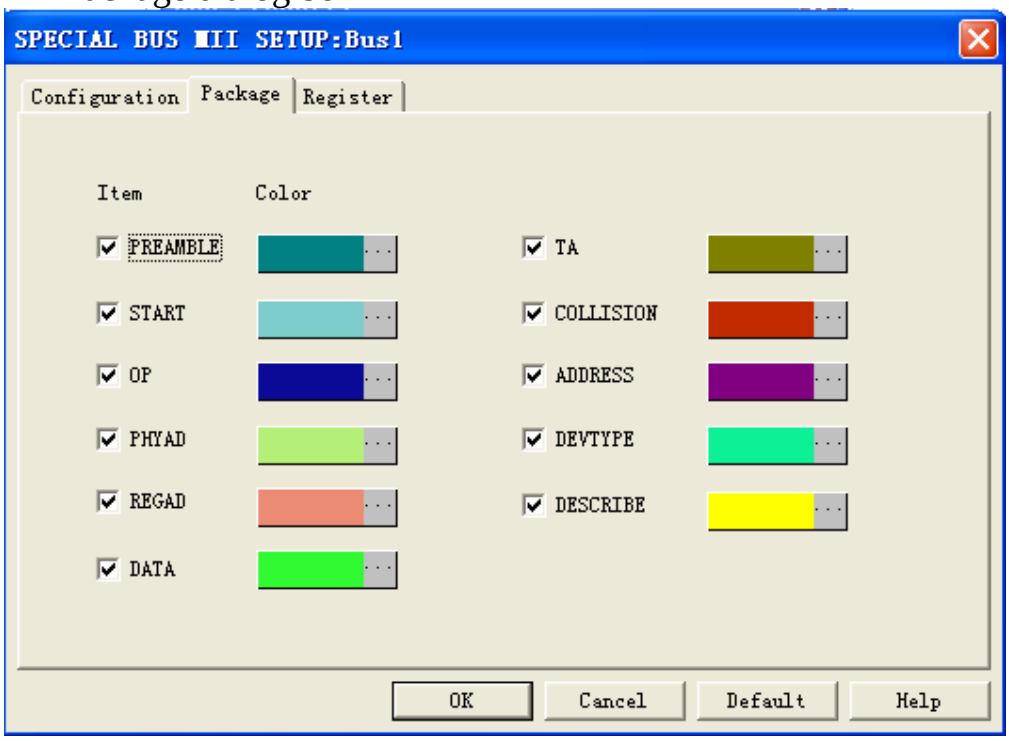
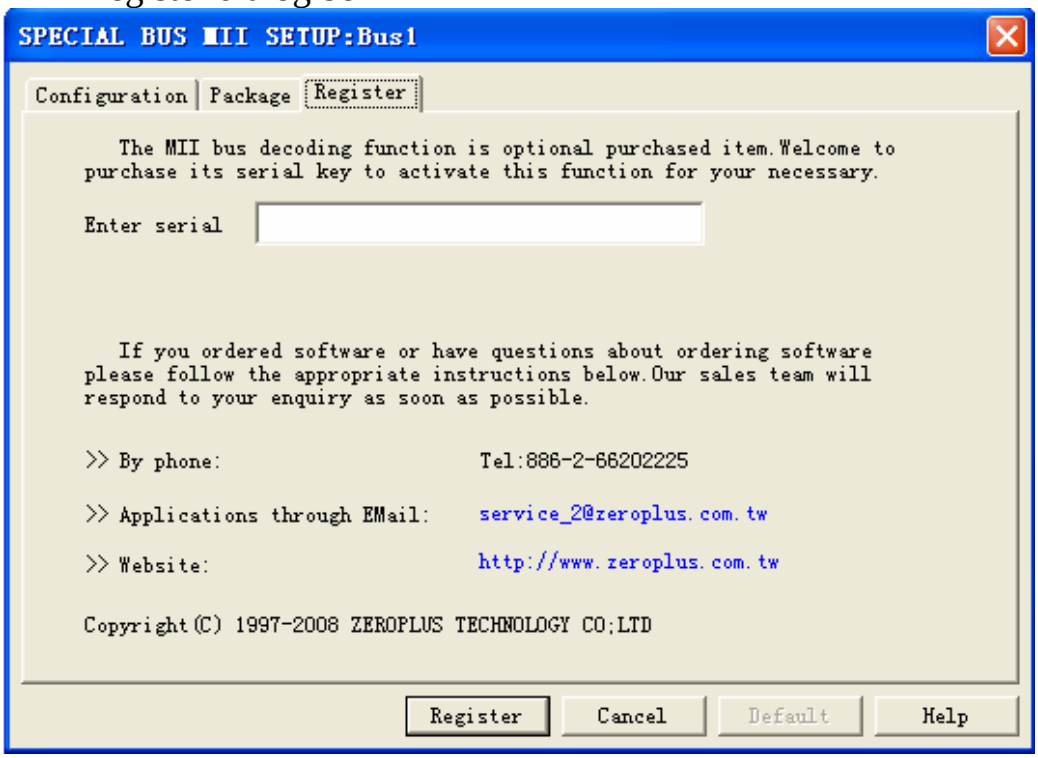
MII Package dialog box



In the package dialog box, User can choose displaying items and sets bus color according to his or her own requirements.

MII Register dialog box



There is written Zeroplus company information details. If you have any questions about software operations, you can contact Zeroplus by Telephone or Email.

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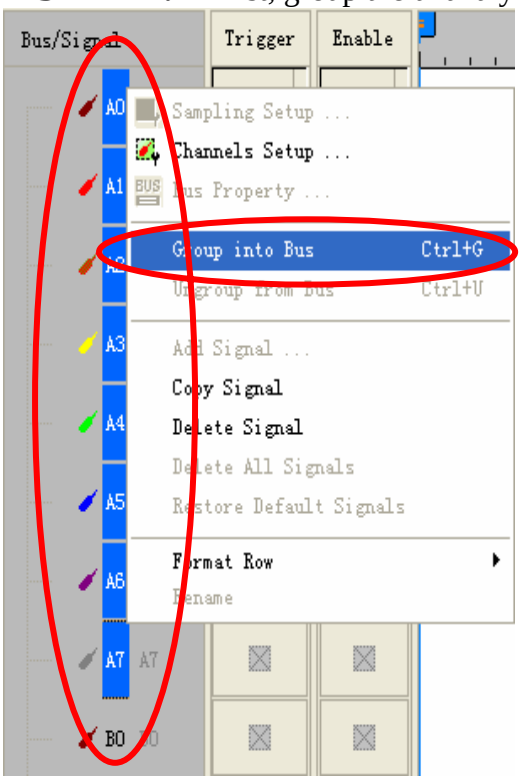
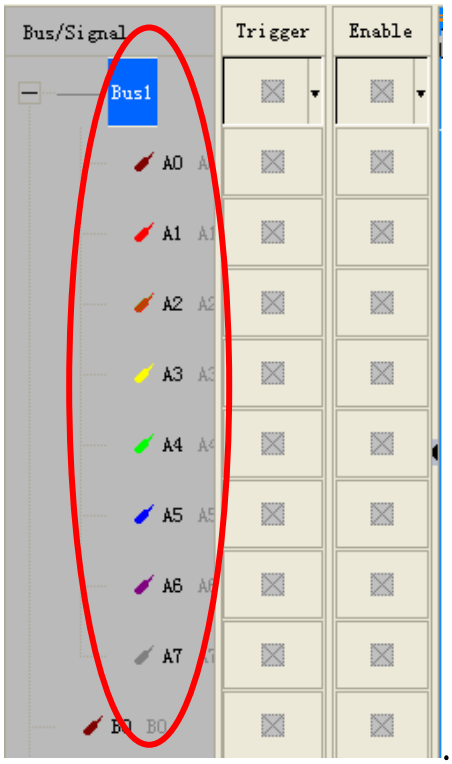
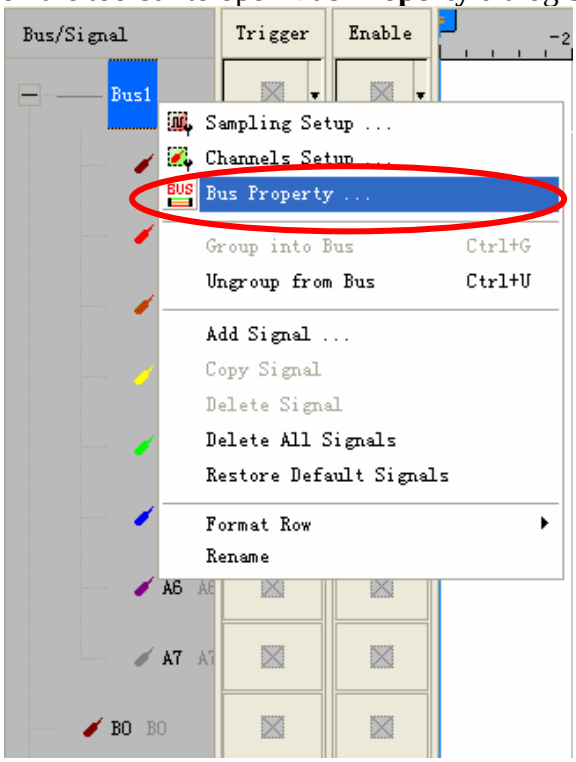
3 Operating Instructions

STEP 1. First, group the unanalyzed channels into **bus1** by pressing the **Right Key** on mouse





STEP 2. Select **Bus1**, then press **Right key** on mouse to list menu, then press **Bus Property** or **Bus** bar on the toolbar to open **Bus Property** dialog box.



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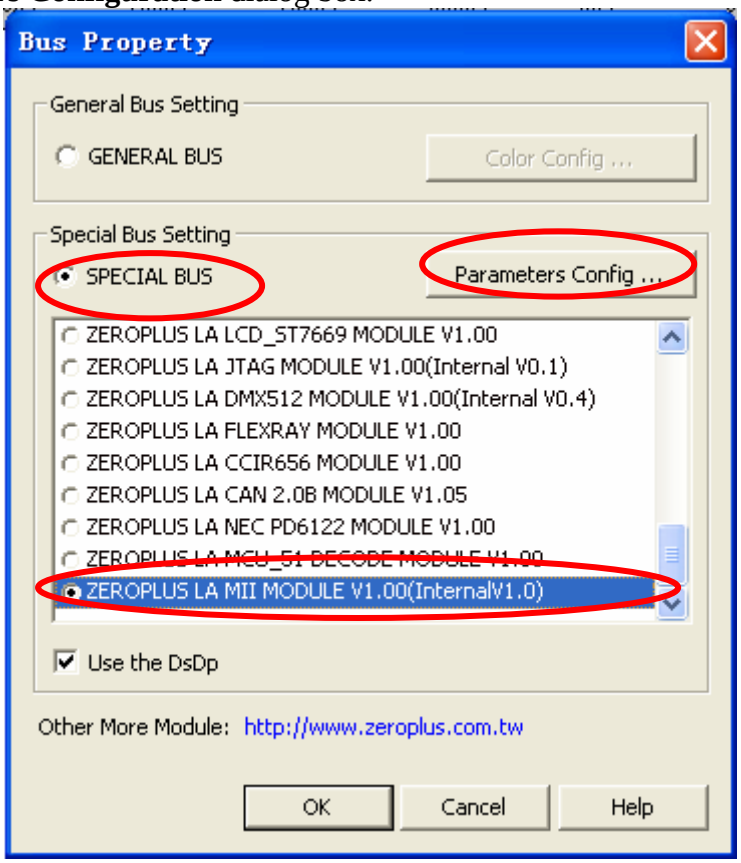
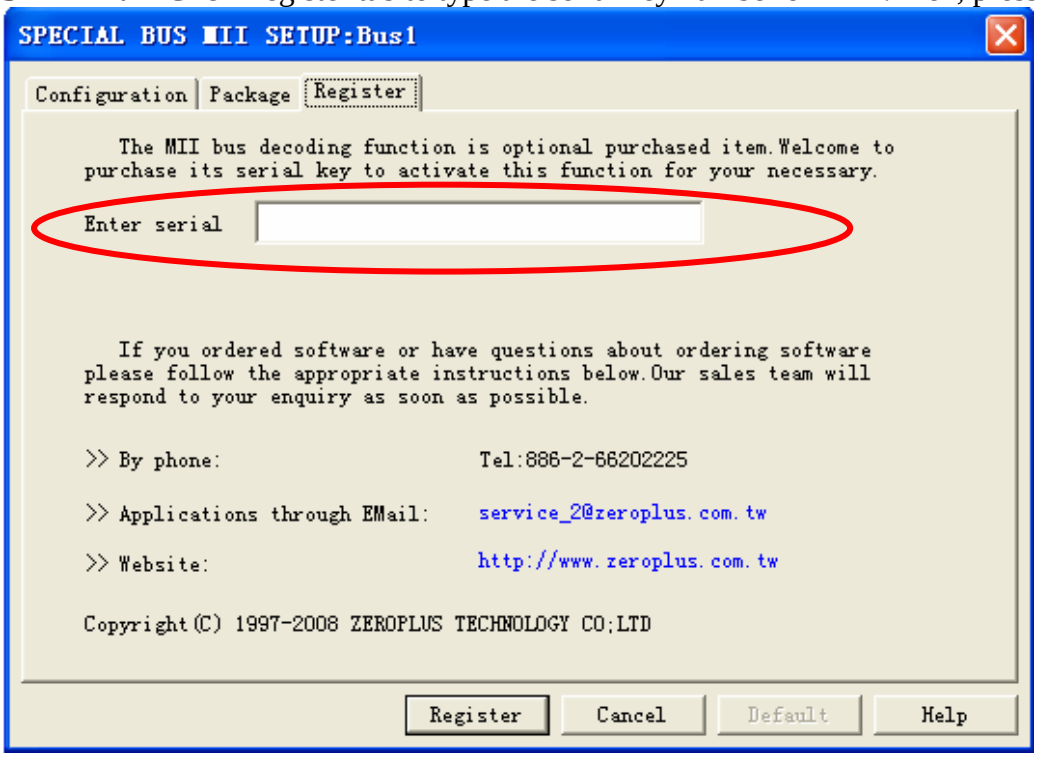
STEP 3. For Special Bus MII Parameters Configuration, select Special Bus, and then select **ZEROPLUS MII MODULE V1.00（InternalV1.0）.** Next click **Parameters Configuration** to open **Parameters Configuration** dialog box.



STEP 4. Click Register tab to type the serial key number of **MII** .Then, press **Register.**



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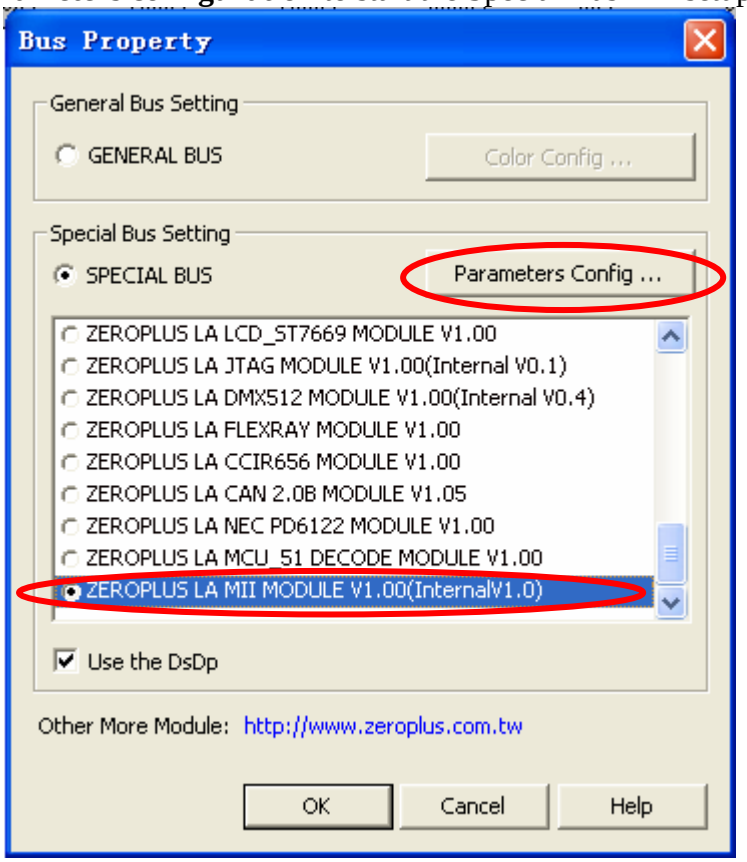
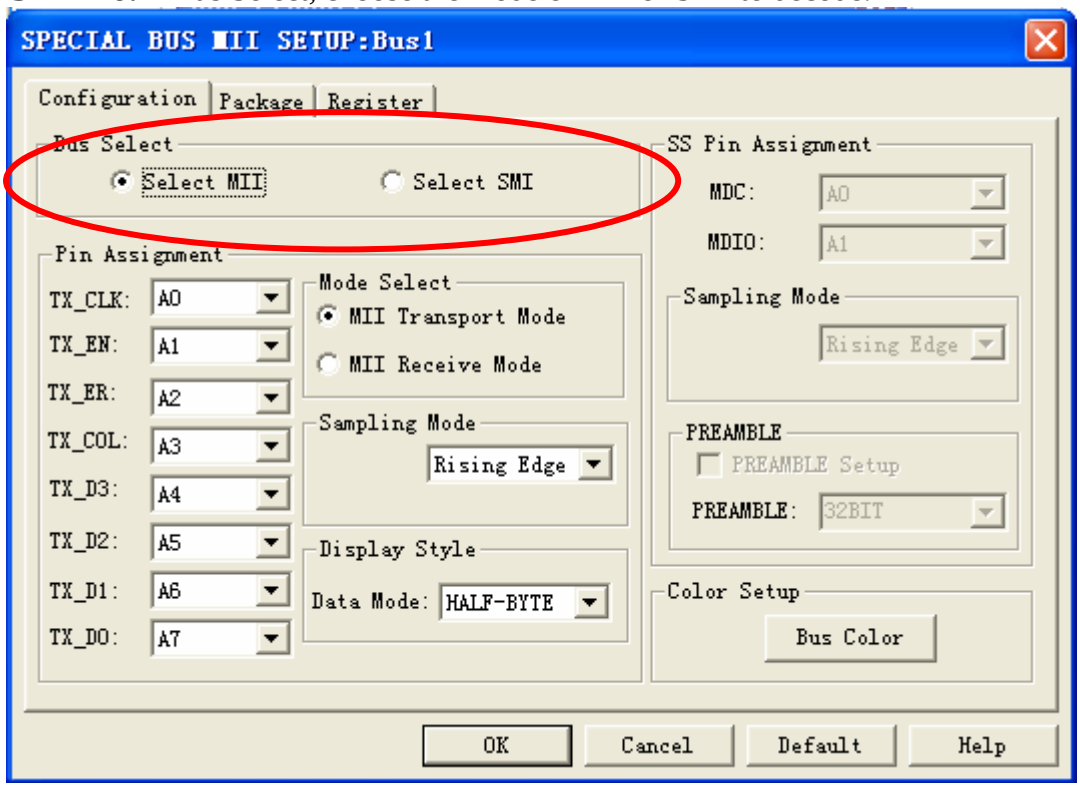
STEP 5. After completing **Register**, come back to the **Bus property** dialog box, then click the **parameters configuration** to start the Special Bus MII setup.



STEP 6. Bus Select, choose the mode of MII or SMI to decode.



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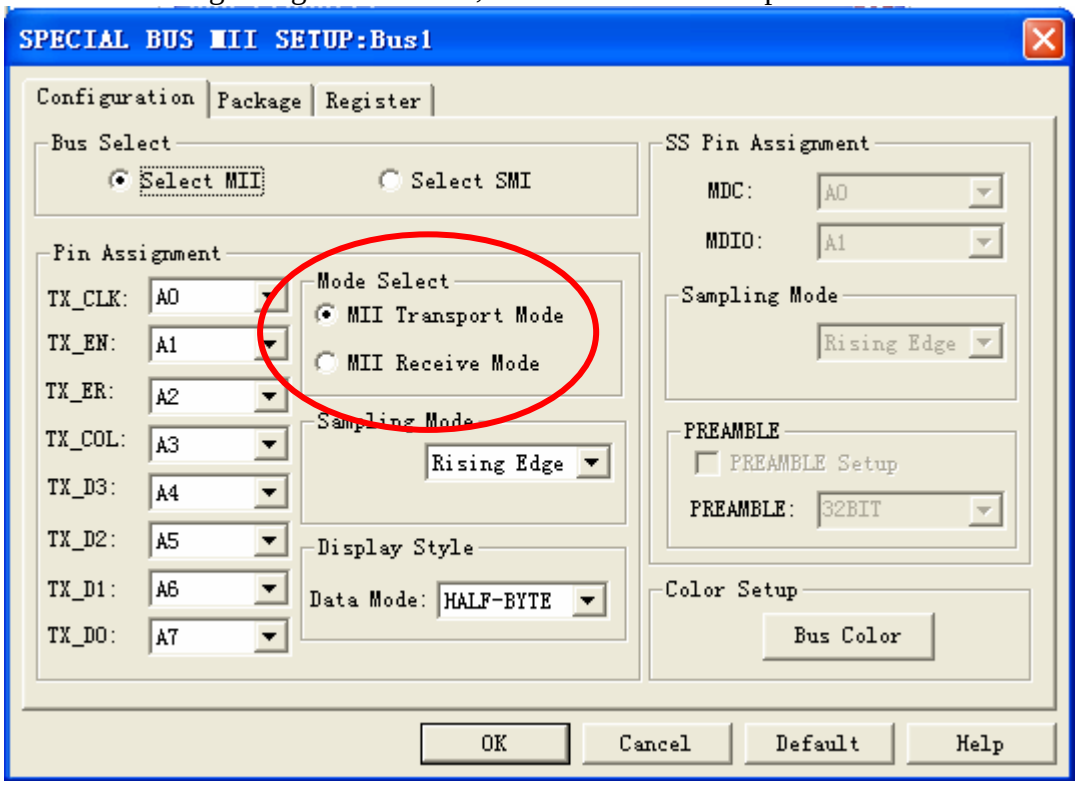
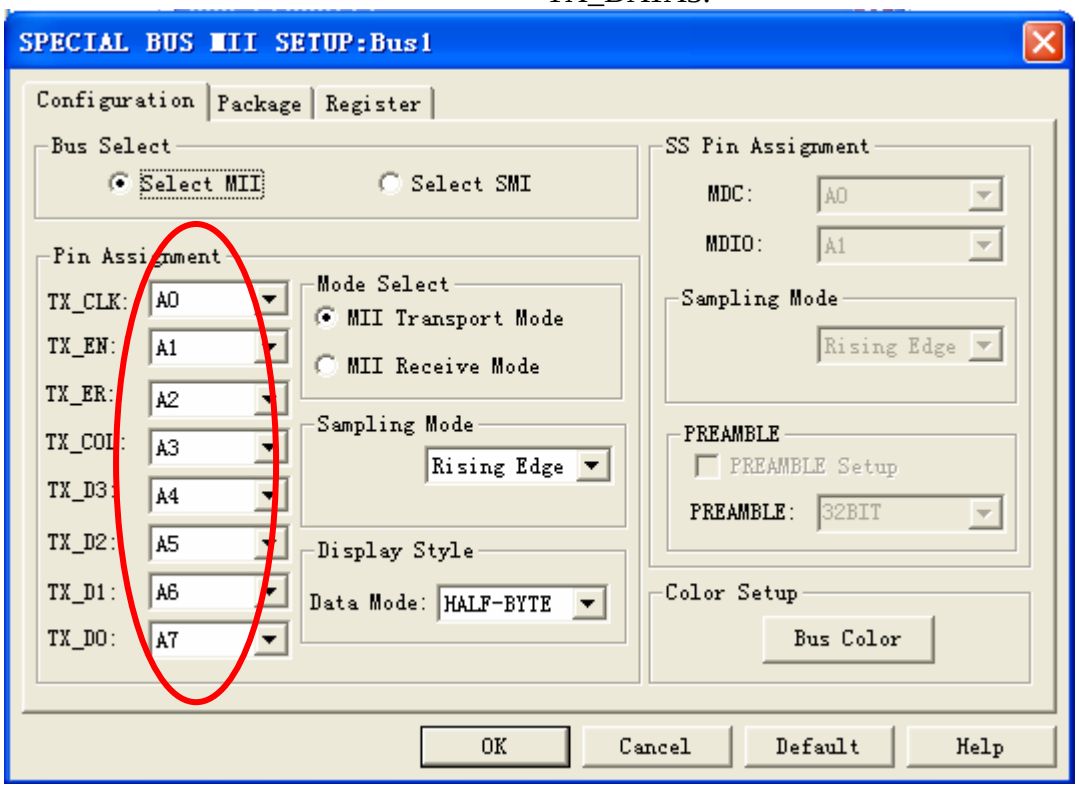
STEP 7. Regarding Mode Select, choose the MII Transport Mode or MII Receive Mode.



STEP 8. If selecting the Transport Mode of MII, then user need to set eight corresponding channels for decoding ,the eight channels are TX_CLK, TX_EN ,TX_ER, TX_COL and TX_DATA0～TX_DATA3.



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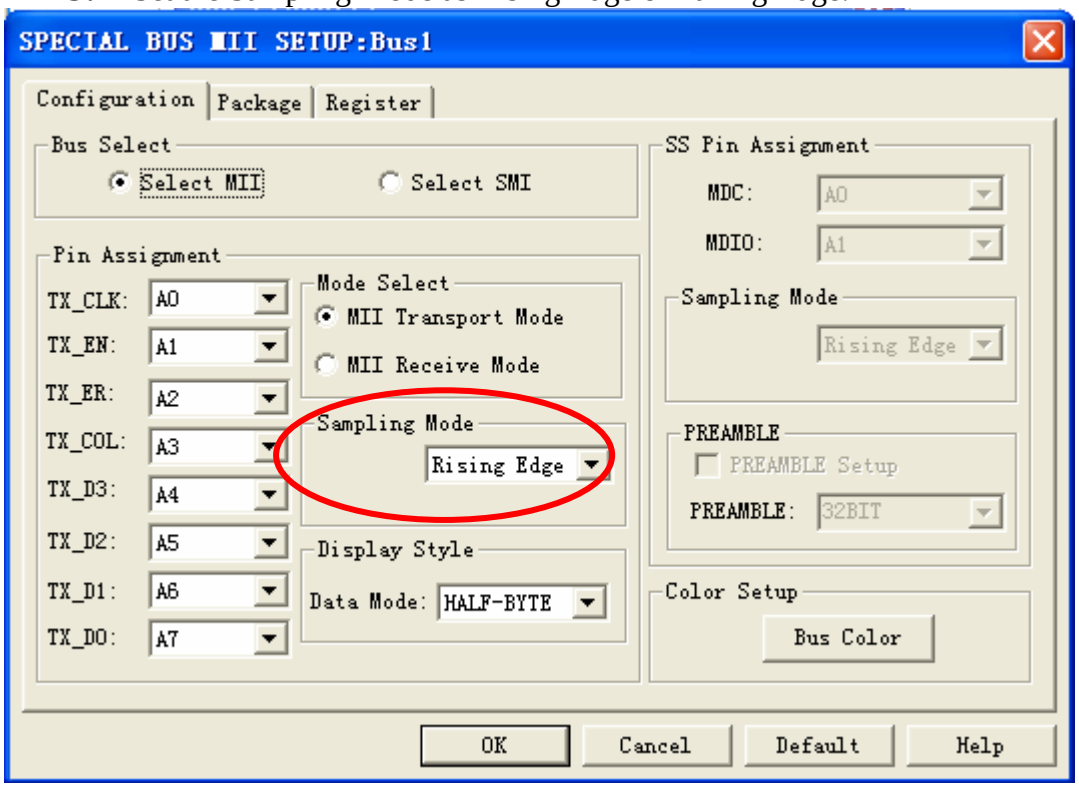
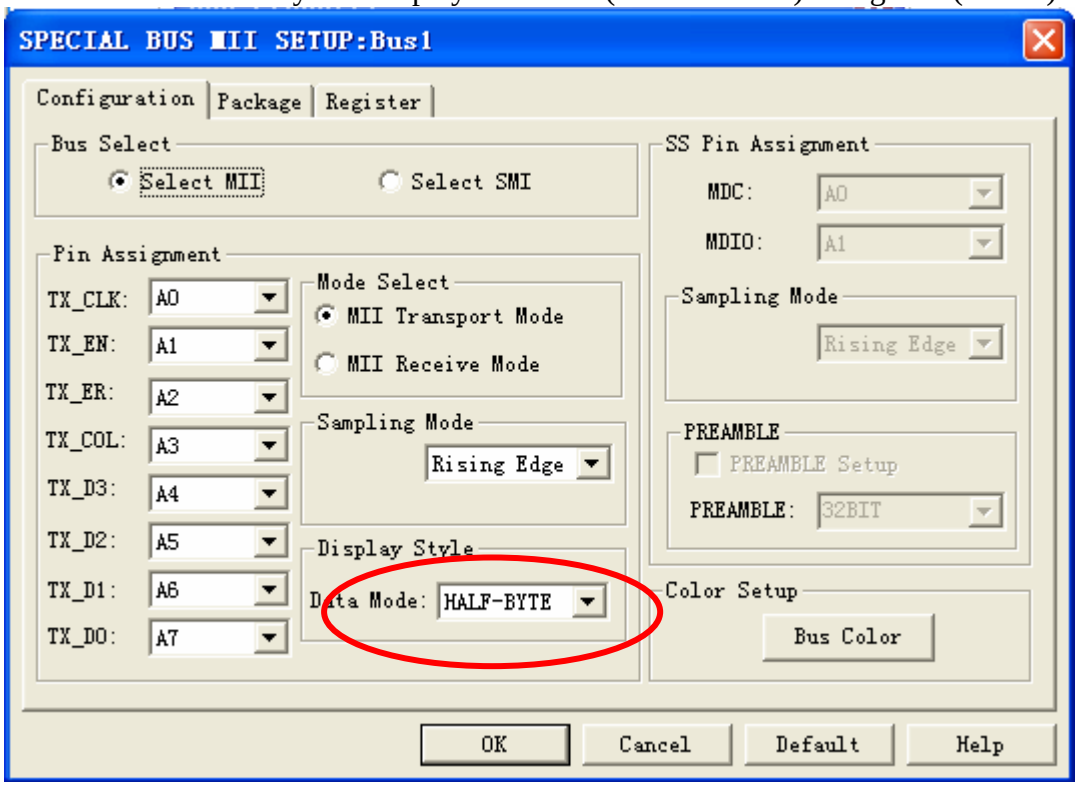
STEP 9. Set the Sampling Mode as Rising Edge or Falling Edge.



STEP 10. Set the style of display as four bit(HALF-BYTE) or eight bit(BYTE).



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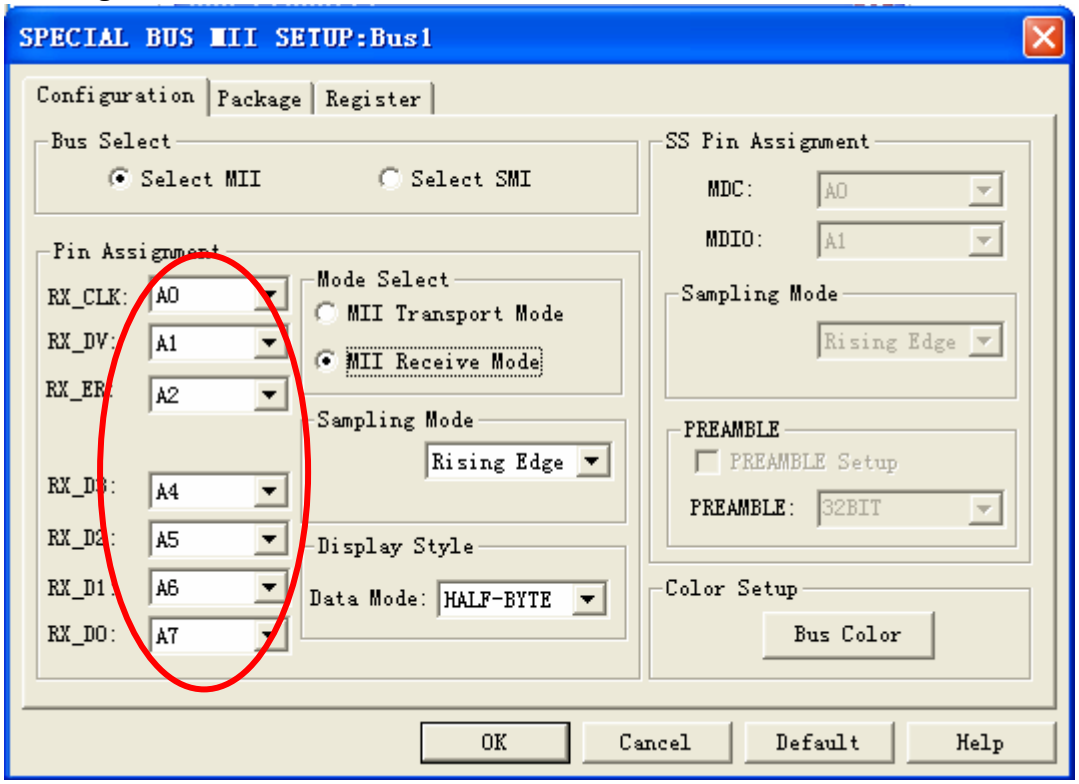
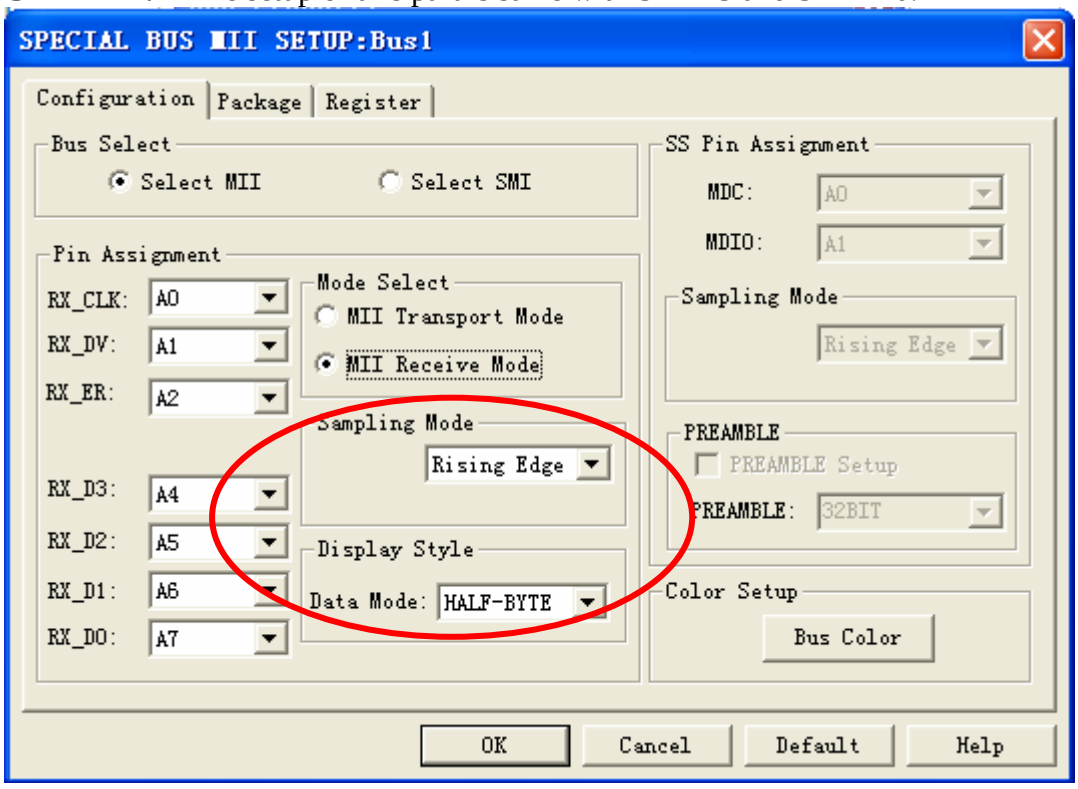
STEP 11. If selecting the Receive Mode of MII, user needs to set seven corresponding channels for decoding ,the seven channels are RX_CLK, RX_ER, RX_DV and TX DATA0～TX_DATA3.



STEP 12. The setup of this part is same with STEP 9 and STEP 10.



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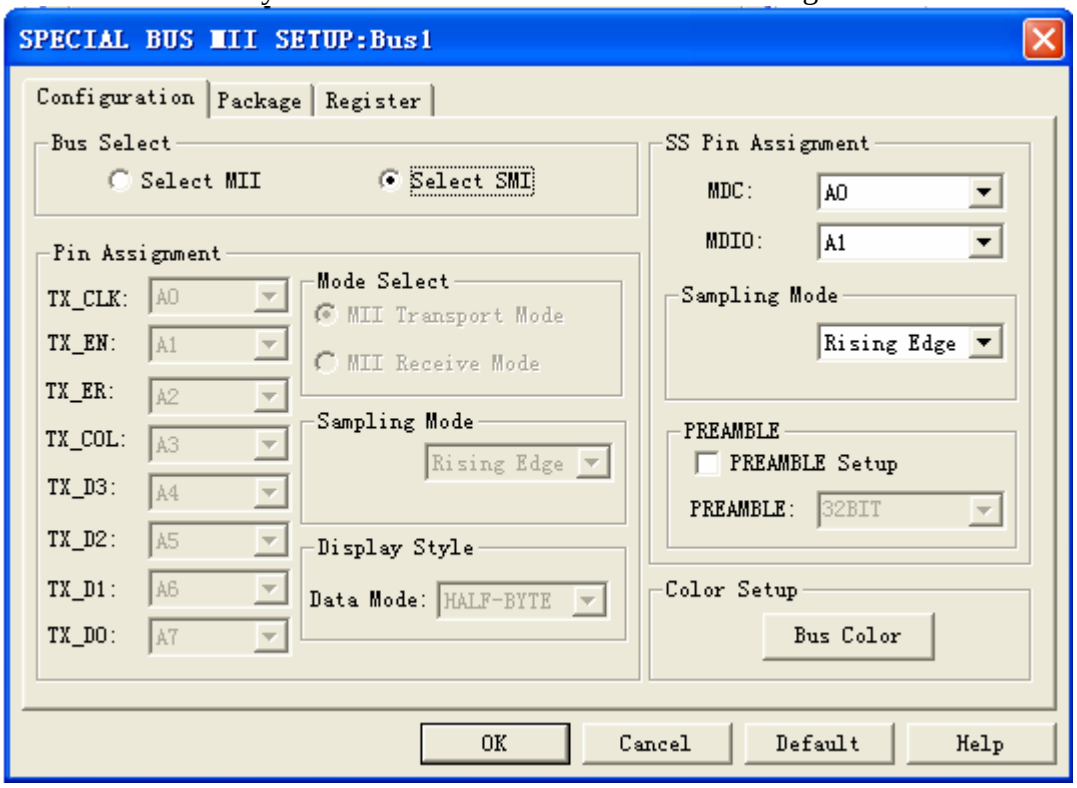
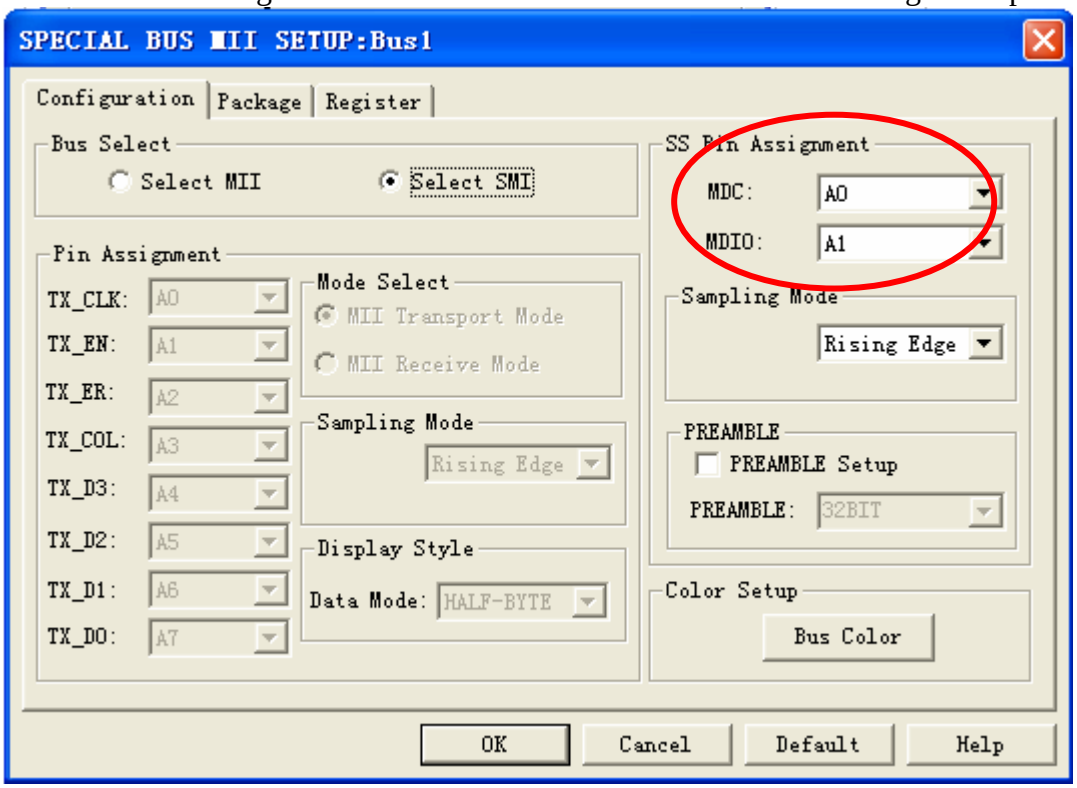
STEP13. It only needs to select two channels for decoding in the SMI Mode.



STEP 14. Setting the MDC and MDIO channels in the SS Pin Assignment part .



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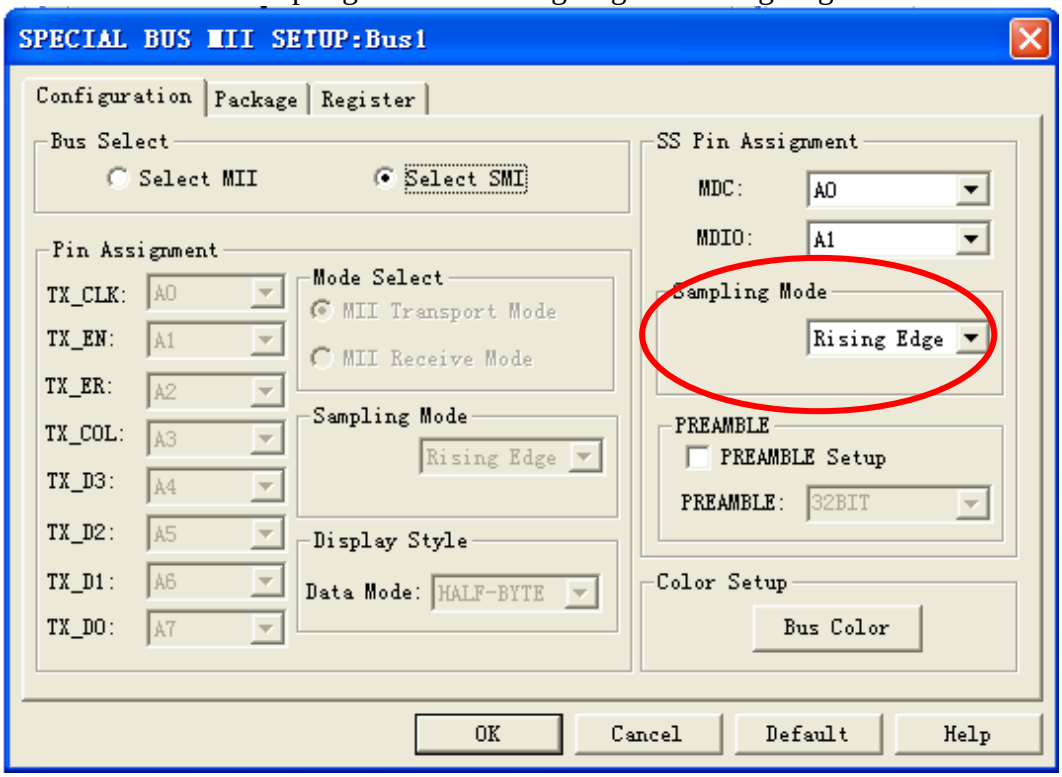
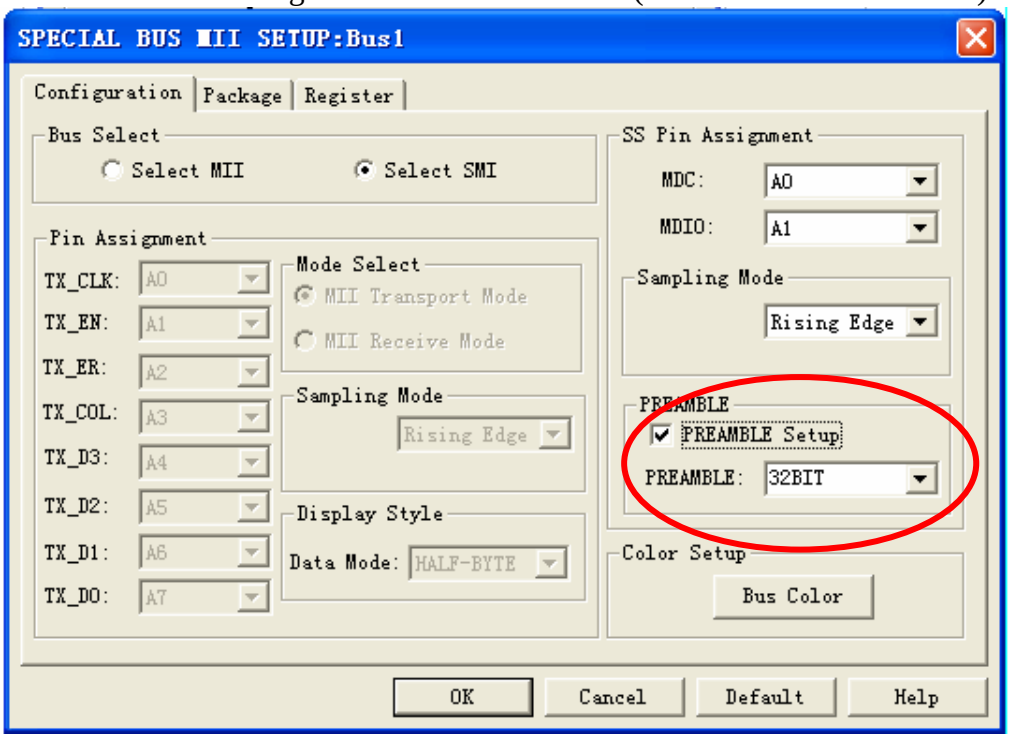
STEP 15. Set Sampling Mode as Rising Edge or Falling Edge



STEP 16. Setting the Bits of PREAMBLE (the default is not selected).



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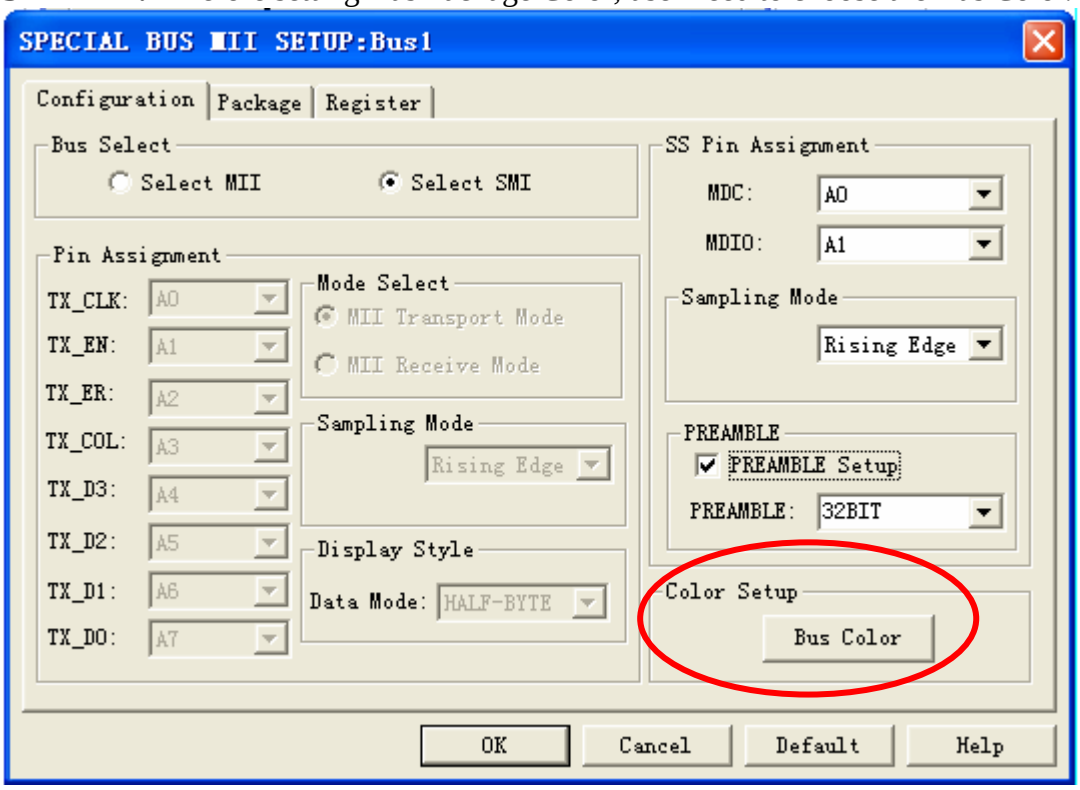
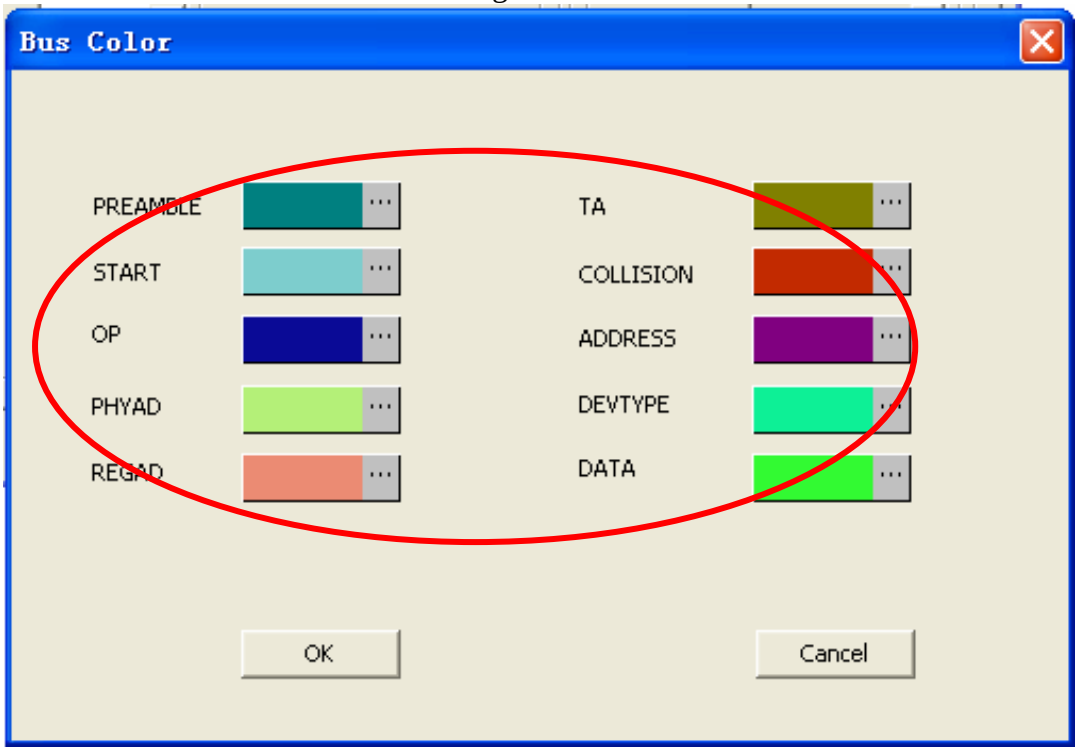
STEP 17. Before setting Bus Package Color, user need to choose the Bus Color.



STEP 18. Set Color for Bus Package.



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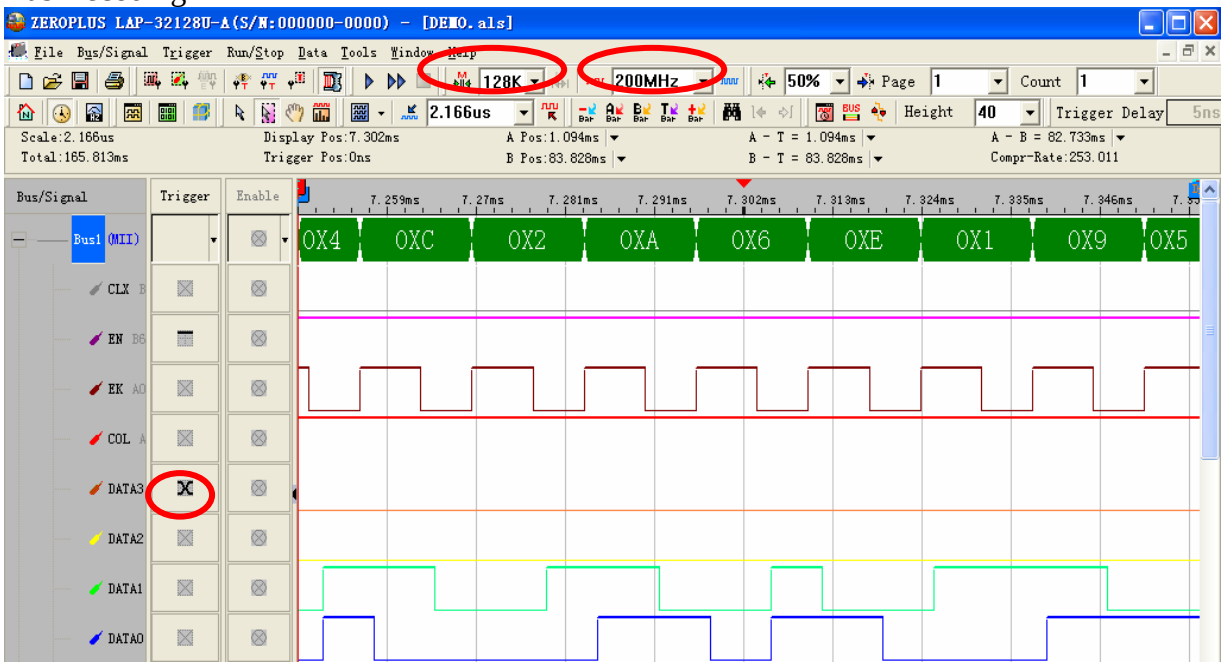
STEP 19. Following pictures show the completion of the Bus decoding and package list for MII . The conditions are set as either edge, Memory depth is 128K, Sampling frequency is 200MHZ.

Bus Decoding



Package List

Packet #	Name	TimeStamp	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4
1	Bus1(MII)	7.228ms	0X8	0X4	0XC	0X2	0XA	0X6	0XE	0X1	0X9	0X5	0XD	0X3	0XB	0X7

DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4	DATA4
0XF	0X8	0X4	0XC	0X2	0XA	0X6	0XE	0X1	0X9	0X5	0XD	0X3	0XB	0XF	0XF	0X6	0XE
0X1	0X9	0X5	0XD	0X3	0XB	0XF	0XF	0X8	0X4	0XC	0X2	0XA	0X6	0XE	0X1	0X9	0X5

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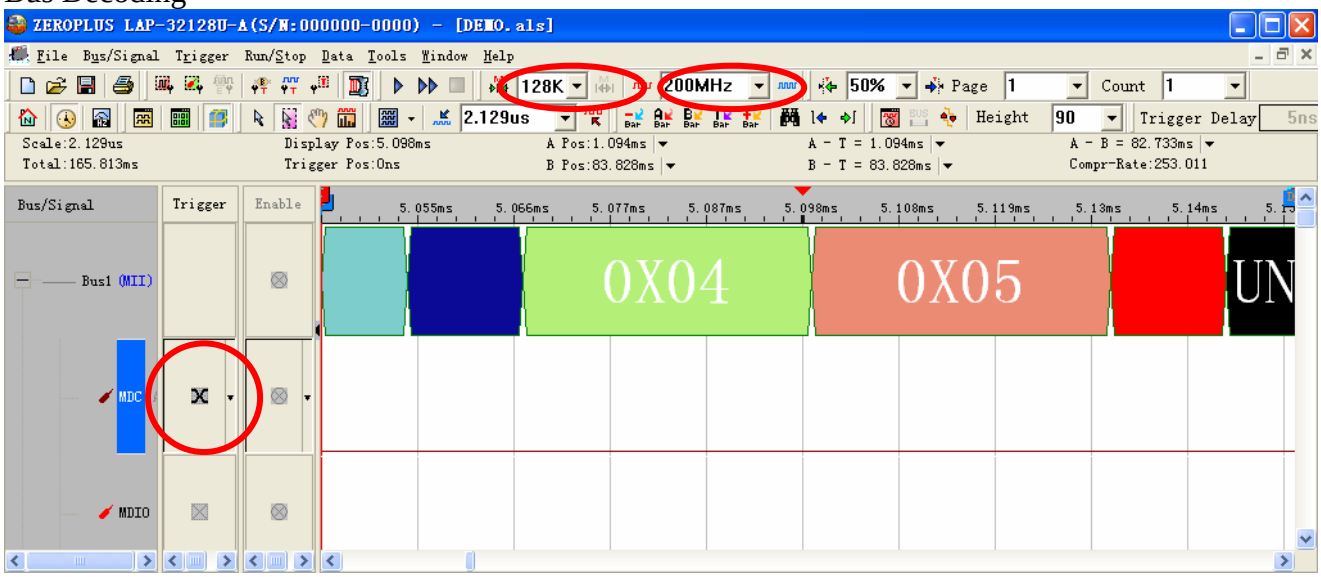
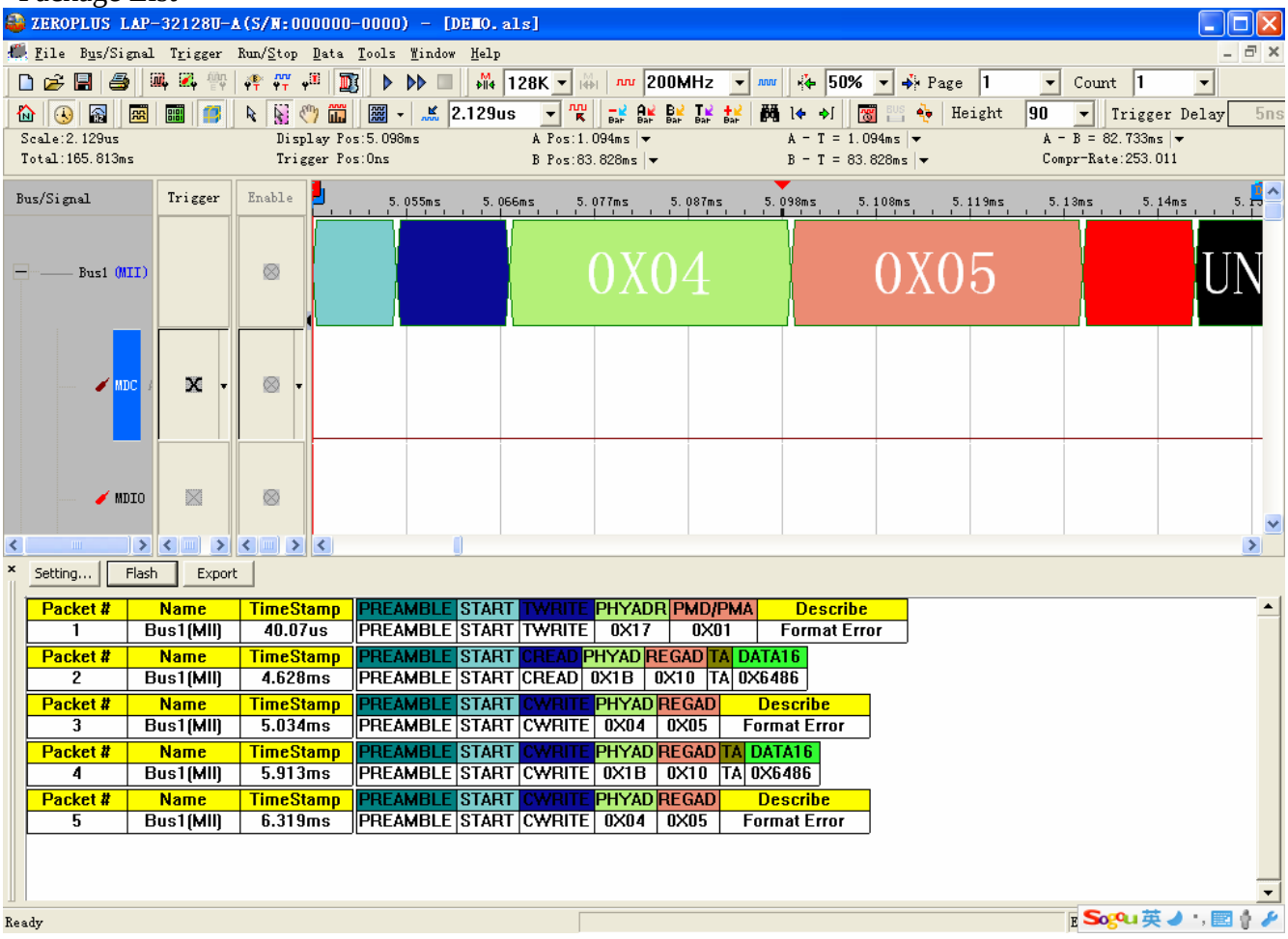
STEP 20. Following pictures show the completion of the Bus decoding and package list for SMI. The conditions are set as either edge, Memory depth is 128K, Sampling frequency is 200MHZ.

Bus Decoding



Package List



Packet #	Name	TimeStamp	PREAMBLE	START	TWRITE	PHYADR	PMD/PMA	Describe
1	Bus1(MII)	40.07us	PREAMBLE	START	TWRITE	0X17	0X01	Format Error

Packet #	Name	TimeStamp	PREAMBLE	START	CREAD	PHYAD	REGAD	TA	DATA16
2	Bus1(MII)	4.628ms	PREAMBLE	START	CREAD	0X1B	0X10	TA	0X6486

Packet #	Name	TimeStamp	PREAMBLE	START	CWRITE	PHYAD	REGAD	Describe
3	Bus1(MII)	5.034ms	PREAMBLE	START	CWRITE	0X04	0X05	Format Error

Packet #	Name	TimeStamp	PREAMBLE	START	CWRITE	PHYAD	REGAD	TA	DATA16
4	Bus1(MII)	5.913ms	PREAMBLE	START	CWRITE	0X1B	0X10	TA	0X6486

Packet #	Name	TimeStamp	PREAMBLE	START	CWRITE	PHYAD	REGAD	Describe
5	Bus1(MII)	6.319ms	PREAMBLE	START	CWRITE	0X04	0X05	Format Error